SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report

Proposed Rule 1315 – New Source Review Tracking System

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EXECUTIVE SUMMARY

Proposed Rule 1315 (PR1315) has been developed to formalize AQMD's accounting methodology in tracking debits and credits to its offset budget under its New Source Review (NSR) program. The accounting methodology contained in PR1315 will be used to annually demonstrate that emissions increases from sources which are not required to provide their own offsets (*i.e.*, sources whose offsets are provided by AQMD) are balanced by credits held in AQMD's offset accounts. PR1315 applies exclusively to AQMD's offset accounts. Therefore, the accounting methodology and equivalency demonstration requirements of the proposed rule will not impact holders of Emission Reduction Credits.

AQMD's NSR program is defined in and established by Regulation XIII – New Source Review. Most recently in 1996, EPA SIP-approved AQMD's Regulation XIII establishing that AQMD's NSR requirements and the federal NSR requirements are programmatically equivalent¹. As part of this SIP-approval, EPA required AQMD to track both emission credits and emission increases from major sources not required to provide emissions offsets to make annual showings that the aggregate emissions offsets provided by AQMD for emission increases pursuant to AQMD's NSR program exemptions are equal to (or greater than) the aggregate emissions offsets that would be required pursuant to the federal NSR requirements. Emissions offsets are emission reductions created at one location to compensate and balance emission increases at another, different location. AQMD's NSR program requires that emission increases are offset by emission reduction credits provided by the applicant or by allocations from the priority reserve pursuant to Rule 1309.1 – Priority Reserve or from the offset budget pursuant to Rule 1309.2. – Offset Budget. The federal new source review program does not include the exemptions listed in Rule 1304. Therefore, major sources exempt under Rule 1304 are not exempt from the offset requirements of federal NSR. As a result, AQMD maintains offset accounts from which it provides offsets for federal major sources exempt from AQMD's NSR requirements pursuant to Rule 1304 and for federal major sources which receive offsets from the priority reserve or the offset budget. AQMD tracks all disbursements from these offset accounts, as well as all deposits to them. The results of this tracking are aggregated and reported on an annual basis. These annual reports summarize the disbursements from and deposits to AQMD's offset accounts, as well as the running account balances. They also demonstrate programmatic equivalency between AQMD's NSR offset requirements and federal NSR offset requirements contained in the federal Clean Air Act for such sources. Proposed Rule 1315 – New Source Review Tracking System is intended to formalize AQMD's accounting methodology for its offset accounts and AQMD's equivalency demonstration and reporting procedures.

BACKGROUND

In general, the Federal Clean Air Act requires that, among other things, emission increases of non-attainment air pollutants from new and modified federal major sources be offset with emissions reductions. The AQMD has implemented an NSR tracking system to demonstrate adequate emission reductions for sources exempt from emission offsets requirements under

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¹ Subsequent to that, in June 2006, EPA SIP-approved AQMD's most-recent (post-1996) amendments to Rule 1309.1.

Regulation XIII – New Source Review, which are otherwise subject to offset requirements under the federal NSR program. AQMD staff has prepared annual reports which track credits and debits for each year and present the remaining balances of credits in AQMD's offset accounts. The NSR tracking reports go back to the year 1990, which was the year when major amendments were made to AQMD's Regulation XIII. A key source of credits in the tracking system in the past has been orphan shutdowns of major sources. Other credit sources have been "negative NSR balances" resulting from permit actions prior to 1990, and the "BACT discount" currently required by Regulation XIII when banking emission reduction credits (ERCs).

In 2002 AQMD adopted an Offset Budget rule (Rule 1309.2 – Offset Budget) as part of AQMD's NSR program to address some of the shortage problems with ERCs. As part of the discussions between EPA and AQMD regarding Rule 1309.2, EPA raised some questions related to the credits in AQMD's offset accounts for use in the Offset Budget rule. Among the key issues raised by EPA are the following:

- creditability of pre-1990 emission reductions, particularly availability of existing records associated with such reductions;
- creditability of reductions resulting from the BACT discount of newly-banked ERCs, since the discount is presumably also used to satisfy the federal time of use discount requirement;
- baseline calculation procedures to assure an "actual" baseline;
- surplus adjustment at time of use of credits in the tracking system; and
- consistency of credit use with assumptions in the State Implementation Plan (SIP).

EPA staff requested that these issues be resolved in order for EPA to approve amendments to Regulation XIII as a result of adoption of Rule 1309.2, which establishes an "Offset Budget." EPA staff has also requested that AQMD adopt a rule specifying how the tracking of debits and credits will occur in the future. Therefore, EPA and AQMD staff engaged in a series of discussions to develop a proposed revised NSR Tracking System intended to demonstrate continued equivalency of AQMD's NSR program with federal NSR requirements and to address EPA's above-described concerns. Proposed Rule 1315 – New Source Review Tracking System (PR1315), as well as certain of the proposed amendments to Rule 1302 – Definitions (PAR1302), represents the result of this process.

DISCUSSION OF PROPOSED RULE 1315 – NEW SOURCE REVIEW TRACKING SYSTEM

AQMD staff has developed a proposed rule which formalizes AQMD's NSR tracking system and includes several modifications to the procedures used in the existing tracking system. The proposed revised procedures include elimination of all credits for which AQMD no longer retains documentation. AQMD has also included additional classes of credits in the tracking system, namely orphan shutdowns of minor sources and other surplus reductions. As a result of these proposed modifications, and even with the inclusion of the minor source orphan shutdowns and other surplus reductions, AQMD's previously-reported 2002 offset account balances² for all

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² This was the latest NSR Annual Report utilizing the existing tracking procedures.

pollutants, except for NOx³, will be reduced, depending on the pollutant, by from 37 % to 81 %. Several elements of the proposed revisions to AQMD's tracking system contribute to these reductions, as discussed below, but the single element of the proposal with the greatest contribution is the reevaluation of pre-1990 credits and proposed elimination of all credits for which AQMD no longer retains documentation. As a result of this proposed change, AQMD's pre-1990 credits will be reduced, depending on the pollutant, by from 7 % to 92 %. The specific amounts of reductions for each pollutant for the pre-1990 credit account balances and the 2002 offset account balances are shown in Table 1.

The detailed line-by-line adjusted credit balances that result from the proposed modified procedures are shown in Attachment A: *AQMD's NSR Offset Tracking—Federal Running Balances*. The following is a more detailed description of the proposed changes.

Table 1
Reductions in AQMD's Pre-1990 Offset Account and 2002 Offset Account
Balances Resulting from Implementation of Proposed Rule 1315

| | VOC | NOx | SOx | СО | PM10 |
|---|------|-------|------|------|------|
| Reduction in AQMD's Pre-1990 Credit Account Balances | 58 % | 7 % | 56 % | 76 % | 92 % |
| Reduction in AQMD's 2002 Offset Account Balances | 37 % | -33 % | 43 % | 68 % | 81 % |

SOURCES OF CREDITS

AQMD has described in its annual status reports on Regulation XIII a 1990 starting balance for offset accounts based on data available in 1990. While portions of pre-1990 credits were used years ago, EPA staff has requested an accounting of the validity of such credits to ensure that such credits were creditable. To that end, EPA staff has raised questions about the availability of records relating to the pre-1990 credits. To address the issues raised by EPA, AQMD staff spent several thousand staff hours reviewing and reevaluating all available data for the pre-1990 credits in its 1990 starting balances. The following is a description of sources of credits in AQMD's tracking system. The pre-1990 timeframe and the 1990 and beyond timeframe are addressed separately due to differing provisions of AQMD rules applicable to generation of credits in these time periods.

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³ The 2002 NOx balance increased relative to the previously-reported 2002 balance. This increase is the result of both the fact that reevaluation of the pre-1990 balances had only a minor impact on NOx (7 % reduction compared with 56 % to 92 % reductions for the other four pollutants) and the inclusion of additional sources of credits into the revised tracking system that have always been surplus but previously were not tracked due to the ample supply of credits in AQMD's offset accounts for all five pollutants.

Pre-1990 Credits

Pre-1990 Permitting Program

AQMD had a robust stationary source permitting program for both major and minor sources in place well before 1990. Key elements of that program are summarized below:

Permit Rules

Since prior to 1976, the year that AQMD adopted its initial NSR rules, virtually any construction or modification of a source has required the operator to obtain a permit to construct from AQMD (Rule 201 – Permit to Construct). The only exceptions to these permit requirements are, and at all times were, specified in AQMD Rule 219 – Equipment not Requiring a Written Permit Pursuant to Regulation II, which exempts certain equipment from permit requirements due to minimal potential to affect air quality. With the exception of the specific exemptions in Rule 219, there has been no exemption from permit requirements for sources emitting even relatively small amounts of air contaminants; that is, *all* sources with potential to emit or control air contaminants, including all federal minor sources have been required to obtain permits when constructed or modified unless specifically exempted by Rule 219.

New Source Review Rules

AQMD adopted its initial New Source Review rules in October, 1976 even prior to the adoption of the New Source Review requirements into the federal CAA. Originally included in Rule 213 – Standards for Permits to Construct: Air Quality Impact, the NSR rules were moved into a series of rules in Regulation XIII – New Source Review in 1979. The rules required offsetting of emissions increases that exceeded certain thresholds. The thresholds were decreased over time pursuant to rule amendments. For example, for volatile organic compounds and nitrogen oxides, the offset threshold initially was 250 pounds per day, and was reduced by rule amendments during the 1980's to 150 pounds per day, 75 pounds per day, 30 pounds VOC per day and 40 pounds NOx per day, and finally down to zero, requiring no net increase in emissions, unless specifically exempt from offset requirements pursuant to Regulation XIII.

NSR Balance

Prior to 1990, in order to implement its offset requirements, AQMD kept a running "NSR balance" for each facility with permitted sources. The NSR balance included an entry for every increase and every decrease in emissions at the facility that resulted from a permit action. The entries in the NSR balance were based on *maximum allowable* emissions, *i.e.* the maximum amount of emissions that a source could emit given its physical capabilities and permit limitations and rule requirements. However, the NSR balance was initially determined for each piece of equipment which had not previously undergone NSR analysis (*i.e.*, pre-NSR equipment) from an *actual* emissions baseline for that equipment. Any subsequent NSR activity for such equipment was conducted on a potential-to-potential basis. Therefore, a pre-NSR source modified under NSR would be subject to NSR on an actual-to-potential basis (*i.e.*, actual pre-modification emissions to potential post-modification emissions)—a very conservative approach.

Prior to 1990, emissions offsets were required when a permit was sought for construction of a new source, or for modification of an existing source, that would cause the sum of increases and decreases at a facility (*i.e.* the NSR balance) to exceed the pre-1990 offset threshold levels.

NSR balance entries had to be quantifiable and enforceable. Such entries only occurred pursuant to permit applications with sufficient substantiating data to ensure quantifiability, after evaluation by AQMD engineers and review by supervisory staff pursuant to Regulation XIII rules and implementing policies established by the agency, and upon issuance of permits or permit modifications which were enforceable under state law.

AQMD applied substantial resources to implementing these rules. For example, from 1985 through 1989 AQMD's engineering staff which processed permits consisted of between 97 and 175 professional engineers and supervisory and management staff. In sum, at all times including, but not limited to, prior to 1990, AQMD has had a robust air quality permitting system—a system which AQMD believes was qualitatively superior in terms of quantification and reliability to any other NSR permitting system in the nation.

Compliance with Federal NSR Requirements

In addition to being reliable, the above-described pre-1990 AQMD NSR rules fully complied with all federal requirements. Indeed, AQMD's NSR rules were more stringent than required by federal law in the following important respects: (1) offset thresholds were lower than required by federal law and a 1.2 to 1.0 offset ratio was used for all sources and all emittents; (2) unlike federal requirements which allowed "bubbling" or netting out of LAER until the 1990 amendments to the Clean Air Act, AQMD's BACT requirement (equivalent to federal LAER) applied to any emissions increase from an individual piece of equipment; *i.e.*, there was no netting out of LAER; (3) offset ratios for SOx, CO, and PM10 were greater than 1 to 1 (*i.e.*, were at 1.2 to 1); (4) AQMD had a zero BACT threshold; and (5) the fact that the NSR balance was initially based upon an actual emissions baseline ensured that any increase in potential emissions that exceeded the actual emissions baseline and resulted in total potential emissions in excess of the offset threshold amount (which, again, was more restrictive than federally required) would be subject to NSR requirements. Additionally, EPA SIP-approved AQMD's Rule 201 as amended January 5, 1990, and AQMD's NSR rules as adopted or amended on the dates identified in Table 2.

Table 2 SIP-Approved Revisions of AQMD's NSR Rules

| Rule | AQMD Adoption Date(s) |
|--------|--|
| 213 | 10/8/1976 (Rescinded by AQMD 6/28/1990) |
| 1300 | (Rescinded by AQMD 6/28/1990) |
| 1301 | 12/7/1995 |
| 1302 | 12/7/1995, 6/13/1997 |
| 1303 | 5/10/1996 |
| 1304 | 6/14/1996 |
| 1305 | 4/6/1984 (Rescinded by AQMD 6/28/1990) |
| 1306 | 6/14/1996 |
| 1307 | (Rescinded by AQMD 6/28/1990) |
| 1308 | 10/5/1979 or 3/7/1980 or 4/4/1980 or 7/11/1980 (Rescinded by |
| | AQMD 6/28/1990) |
| 1309 | 12/7/1995 |
| 1309.1 | 12/7/1995, 6/19/2006 |
| 1309.2 | (Pending SIP Approval) |
| 1310 | 12/7/1995 |
| 1311 | 10/5/1979 (Rescinded by AQMD 6/28/1990) |
| 1312 | (Rescinded by AQMD 6/28/1990) |
| 1313 | 12/7/1995 |

Negative Balances

By 1990, some facilities had negative NSR balances. These negative balances were the result of equipment shutdowns or process changes since October 1976 which resulted in reductions in emissions from a source. The majority of negative balances resulted from equipment shutdowns. Like all entries in the NSR balance, negative balances only occurred pursuant to permit actions—*i.e.* either modification of an AQMD permit or shutdown of equipment. Negative balances were quantified by AQMD engineers based upon the permitted physical capabilities of the modified or shut down equipment and applicable permit requirements.

Existing Pre-1990 Accounting

AQMD's offset accounts were established with starting balances based on pre-1990 emissions reductions. The primary source of these pre-1990 reductions was a portion of facilities' negative NSR balances which were discounted as specified in the 1990 amendments to Regulation XIII (described below). The 1990 Regulation XIII amendments also directed the Executive Officer to recall all existing pre-1990 ERCs which had resulted from shutdowns, discount them by eighty percent, and issue new ERCs at twenty percent of their original values. The eighty percent discount of the pre-1990 shutdown ERCs was deposited into AQMD's offset accounts along with the amounts derived from the discount of pre-1990 negative balances (further explanation of the implementation of the 1990 amendments to Regulation XIII is provided with the discussion of AQMD's proposed revisions to its pre-1990 accounting). All of AQMD's annual status reports prepared to date have included the starting balances from these sources (discount of pre-1990 negative balances and pre-1990 shutdown ERCs); AQMD has not

taken credit for any other pre-1990 sources of credits, such as the zero BACT threshold, use of ERCs by minor sources, or the additional ERCs provided by major sources for SOx, CO, and PM10 at a ratio of 1.2 to 1.0 compared to 1.0 to 1.0.

Proposed Adjustments to Pre-1990 Accounting

AQMD is now proposing to significantly reduce (by more than 60 % overall) its pre-1990 emission credits by eliminating any present or past use of any credits for which AQMD presently has no records and cannot re-verify the validity of such credits and to only utilize the portion of the previously-reported pre-1990 emission reductions which was originally validated in 1990/91 and revalidated in 2004/05 as credits in its tracking system and for which AQMD has all or some records. The emission reductions that underlie those credits occurred between 15 and 29 years ago, and not all records related to them are available today. In many cases, however, summary data based on previous analyses are available. While not all records are available, AQMD at all relevant times prior to and after 1990 had a sufficiently robust permitting program and record validation procedure to provide confidence regarding the validated emission reductions for which AQMD proposes to take pre-1990 credits. This conclusion is supported by the preceding discussion of AQMD's pre-1990 permitting program and the following summary of the 1990 Regulation XIII amendments and their implementation:

- 1990 Regulation XIII Amendments
 - AQMD substantially modified Regulation XIII in 1990. The offset threshold was dropped to zero, although relatively small emitting facilities (*e.g.* less than 30 pounds per day of VOC or 40 pounds per day of NOx) were eligible to obtain needed credits from a new "Community Bank." Under the 1990 amendments, negative balances were to be "verified by the Executive Officer" and discounted by 80%. The rules specified that "upon validation" the remaining amount was to be issued to the permit holder in the form of an ERC (Rule 1309(a)).
- Implementation of 1990 Amendments Shortly after adoption of the 1990 amendments to Regulation XIII, AQMD staff drafted a detailed internal guidance document titled "Regulation XIII – New Source Review Guidance Manual" specifying how the amendments would be implemented by AQMD permit processing engineers. The required treatment of negative balances was described in this document. It specified that negative balances would have to be "verified" in accordance with standard procedures. It also specified that each facility's NSR account would be searched by computer to determine if any "forgivenesses" (i.e. negative entries due to prior rule amendments lowering offset thresholds) contributed to the facility's negative balance. The document further provided that NSR balances "shall be recalculated" since these forgivenesses were not "real" emission reductions and therefore did not qualify for an ERC pursuant to Rule 1309(b)(1). The transition document also specified that any negative particulate matter emissions balances would be converted to PM10 by multiplying the particulate matter emissions by an average factor of 0.5. Finally, the document stated that any facility with a negative balance of 500 pounds per day or greater was to have each negative entry "confirmed by reviewing the application file which resulted in the negative NSR entry." The vast majority of negative balances at the time (in excess of 80%) were associated with facilities with negative balances exceeding 500 pounds.

In 1991, AQMD's engineering staff commenced the verification and validation processes described in the transition document. The result of these processes was a substantial reduction in the amount of the negative balances for some pollutants, even prior to the 80% discount. These reductions were the result of (1) addressing the "forgivenesses," (2) determinations that some reductions were required by AQMD rules and thus ineligible for ERCs, and (3) in some cases correction of simple data entry errors. Table 3 presents the 80 % portion of the 1990 negative balances that were deposited in AQMD's offset accounts. The larger amount shown for each pollutant is the amount originally deposited as the result of this process in the early 1990s and which has been previously reported as the 1990 starting balance in the annual NSR status reports and the lower amount is revised based upon recent (2003) re-validation of these numbers by AQMD staff based on records that are still available to address EPA's comments and consistent with EPA policy guidance which allows use of pre-1990 credits that are explicitly included and quantified as growth in the SIP. Such guidance provides that the permitting agency must maintain information including, at a minimum, the name of the source that generated the credit, the source category, credit quantity, specific action that generated the credit, date the credit was generated and "enough other information to determine the creditability. . . . " (Memorandum from John Seitz to David Howekamp August 26, 1994).

Records for pre-1990 emission credits are from 15 to 29 years old. AQMD staff recently conducted an extensive review of the pre-1990 credits and determined that the types of records available today include printouts of NSR data captured in AQMD's permitting database at the time of permit issuance and complete engineering files, which include the materials and documentation submitted by the applicant and AQMD's engineering evaluation.

Table 3
Pre-1990 Credits Deposited in AQMD's Offset Accounts
(Tons per Day)

| | VOC | NOx | SOx | CO | PM10 | Overall |
|--------------------------------------|-------|-------|------|-------|-------|---------|
| Previously-Reported Pre-1990 | 92.4 | 25.8 | 18.4 | 34.9 | 34.5 | 206 |
| Credits | | | | | | |
| Revised Pre-1990 Credits | 38.46 | 23.92 | 8.04 | 8.45 | 2.67 | 81.5 |
| Verified with Records or | 30.40 | 23.92 | 0.04 | 0.45 | 2.07 | 01.5 |
| Validation Procedures | | | | | | |
| Percent Reduction in Pre-1990 | 58 % | 7 % | 56 % | 76 % | 92 % | 60 % |
| Credits | 30 % | 1 70 | 30 % | 10 70 | 92 70 | 00 % |

In the proposed revised NSR Tracking System, AQMD is proposing to only use the revised and re-verified pre-1990 credits (as set forth in Table 3). There are pre-1990 credits which can reasonably be concluded to be creditable based on presently available records. In some cases, such conclusion can be reached because all of the information described in the 1994 Seitz memorandum is currently available. In other cases, the above-described permitting procedures provide "enough other information to determine the creditability. . . ." However, for the majority of the pre-1990 emission reduction credits (more than 60 % overall), the AQMD at present time no longer has the ability to substantiate the validity of the original

records based on the available records. Therefore, AQMD is now proposing to significantly reduce its pre-1990 emission reduction credits by eliminating any past or present use of any credits for which AQMD presently can no longer substantiate the validity of such records.

Remaining Pre-1990 Credits

AQMD's NSR tracking system has not previously specified the age of credits held in AQMD's offset accounts. However, in response to EPA's comments about the use of pre-1990 credits, staff has completed a "First In/First Out" analysis of these accounts. This analysis shows that significant portions of the pre-1990 VOC and SOx credits remain in AQMD's offset accounts as of July 2002, about one quarter of the pre-1990 NOx credits remained in AQMD's offset accounts as of July 2002, and all of the pre-1990 CO and PM10 credits were depleted from AQMD's offset accounts by 1997⁴. In order to address EPA's comment regarding future use of pre-1990 credits from AQMD's accounts, AQMD proposes to eliminate any unused pre-1990 VOC, NOx, and SOx credits remaining in its offset accounts at the end of the 2004-2005 reporting period and not use any pre-1990 credits in its offset accounts post 2005.

1990 and Beyond Credits

Existing 1990 and Beyond Accounting

Due to the high level of available credits in AQMD's offset accounts, AQMD presently only takes credit for some of the qualified credit sources. For example, AQMD's NSR tracking system currently takes credit for orphan shutdowns from major sources only, but not from minor sources. The existing tracking system credits orphan shutdowns to AQMD's offset accounts based upon the allowable permitted level of emissions of the shutdown source. It also does not take credit for surplus reductions of SOx, CO, or PM10 provided as ERCs by major sources as a result of the differences in federal and local offset requirements for these pollutants (local requirement is 1.2 to 1.0 while federal law does not specify an offset ratio in excess of 1.0 to 1.0 for SOx, CO, or PM10) or for surplus reductions resulting from minor sources providing ERCs as emission offsets. The tracking system also does not take credit for AQMD's zero BACT threshold. BACT discounts applied to newly-banked ERCs are credited to AQMD's offset accounts. Offsets are debited from AQMD's offset accounts at 1.2 to 1.0 for all five pollutants when major sources that are not exempt pursuant to the CAA are permitted using Rule 1304 exemptions or the Priority Reserve. AQMD's portion of the California SIP does not include assumptions reflecting the NSR tracking system or commitments to make up any shortfall in AQMD's offset accounts. Additionally, the tracking system does not take credit for surplus reductions resulting from modifications at major sources that do not constitute "major modifications" pursuant to the new NSR Reform Regulations.

⁴ All data for 1991 to 1997 is aggregated, so it is uncertain when in this time period the 1990 starting federal account balances for CO, and PM10 were depleted. However, by assuming that these credits were consumed at an approximately constant rate, it is estimated that PM10 was depleted in 1994, and CO was depleted in 1995.

Proposed Adjustments to 1990 and Beyond Accounting

The proposed changes to the sources of credits to and debits from AQMD's offset accounts for the 1990 and beyond time period are summarized below:

Pre-1990 Credits

AQMD proposes to **eliminate** any unused pre-1990 credits remaining in its offset accounts at the end of the 2004-2005 reporting period and to not use any pre-1990 credits in its offset accounts post 2005.

Minor Source Orphan Shutdowns

Post-1990, the NSR tracking system has only used orphan shutdowns of major sources to fund AQMD's offset accounts. However, shutdowns of permitted *minor* sources also meet the requirements that credits be real, permanent, enforceable, quantifiable, and surplus in the same way as do major source shutdowns. ERCs generated from minor sources are commonly used to fulfill the offset requirements for emission increases at major sources which are not exempt from offset requirements under AQMD's NSR rules. Therefore, although AQMD has not previously used these credits due to the large balances available in its offset accounts, it is appropriate to include emission reductions from minor source orphan shutdowns as credits in AQMD's offset accounts.

AQMD's Rule 201 requires written authorization from the Executive Officer (i.e., a permit to construct) before a person may build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants. Rule 203 – Permit to Operate similarly prevents the operation or use of such equipment without a permit issued by the Executive Officer. The only exceptions to these requirements are specifically identified in Rule 219. However, all of the minor sources which AQMD proposes to use as sources of orphan shutdown credits as described above have been through the permitting process. In fact, such minor sources are subject to the same Regulation IV - Prohibitions, Regulation XI - Source Specific Standards, and Regulation XIII rule requirements as are major sources. In some cases the operators of these sources go through the necessary steps to quantify and generate ERCs when they experience real, permanent, enforceable, quantifiable, surplus emission reductions (e.g., equipment or facility shutdown or modification). Such ERCs generated by minor sources are fully valid and eligible for use as major source offsets. Therefore, in cases where the operators do not go through the steps to generate ERCs from their emission reductions, it is appropriate for AQMD to treat these orphan shutdowns in the same manner as it does orphan shutdowns at major sources.

• Major Source Use of SOx, CO, and PM10 ERCs PR1315 includes credit for the 20 % additional SOx, CO, and PM10 ERCs provided by major sources as emission offsets at a ratio of 1.2 to 1.0 pursuant to Rule 1303 rather 1.0 to 1.0 (federal accounting). The 20 % above a 1.0 to 1.0 offset ratio is creditable because the federal CAA only requires a 1.2 to 1.0 offset ratio for extreme non-attainment pollutants and their precursors; the required offset ratio for SOx, CO, and PM10 pursuant to the CAA and the TSD is "at least 1 to 1" according to EPA.

- Offset Ratio for Exempt Major Sources of SOx, CO, and PM10 PR1315 changes the offset ratio for major sources of SOx, CO, and PM10 offset from AQMD's offset accounts from 1.2 to 1.0 to 1.0 to 1.0 (federal accounting). This change is consistent with the CAA, which only require a 1.2 to 1.0 offset ratio for extreme nonattainment pollutants and their precursors (not from SOx, CO, or PM10).
- ERCs Provided by Minor Sources to Offset Emission Increases The CAA does not require minor sources to provide offsets for their emission increases. Therefore, the third-party ERCs that these sources provide to offset their increases pursuant to Rule 1303 are creditable to AQMD's offset accounts.
- Surplus Discount at Time of Use
 Credits in AQMD's offset accounts that resulted from post-1990 orphan shutdowns or orphan
 reductions and which, based on a first-in/first-out analysis, are not used in the same
 timeframe they are banked will be subject to a BARCT at the time of use adjustment
 pursuant to PR1315. This will be accomplished based on rule control requirements that
 become effective each year. Specifically, each year all credits in AQMD's offset accounts
 carried over from the previous year be discounted by the amount of the percentage reduction
 in overall permitted emissions⁵ projected to be achieved as a result of implementation of
 control requirements that become effective during the year for the pollutant in question. This
 analysis will be performed on an aggregate basis each year for credits carried over from the
 previous year.

Actual Emissions Baseline

PR1315 uses an average discount factor to account for the difference between potential and actual emissions. Since 1997, AQMD has used a twenty percent discount to convert potential emissions to estimated actual emissions for purposes of compliance with state "no net increase" requirements. This procedure has been used with concurrence of the California Air Resources Board. PR1315 uses the same factor for federal NSR tracking purposes. In light of the methodology used to quantify potential emissions (explained in more detail below), staff's engineering judgment indicates that, on average, a twenty percent reduction from potential emissions is a reasonable estimate of actual emissions. Actual emissions for individual sources will range from the sources' potential emissions down to less than eighty percent of potential emissions, but eighty percent of potential emissions represents an acceptable estimate of aggregate actual emissions. The use of eighty percent of potential emissions as actual emissions is well documented in AQMD's annual status reports regarding Regulation XIII.

Facilities with potential to emit in excess of the Rule 1304 exemption thresholds (4 tons per year for VOC, NOx, SOx, and PM10 and 29 tons per year for CO), provide ERCs to offset their increases in potential emissions so they have a strong incentive to keep their potential emissions in line with actual emissions at times of high production. Smaller facilities with potential to emit below the exemption thresholds may be inclined to request permits based on potential emissions at the exemption threshold levels because the offsets are provided by

⁵ Permitted emissions data is derived primarily from permitted facilities emitting more than four tons of VOC, NOx, SOx, or PM per year or more than 100 tons of CO per year.

AQMD at no cost to the facility. However, AQMD engineers perform a thorough evaluation of each permit application prior to recommending issuance of a permit to construct or a permit to operate. These evaluations include a determination of the actual controlled emission rate (based on source test results, VOC content of coatings, sulfur content of fuel, or other potential toxics emissions for example) or expected actual controlled emission rate (based on established emission factors or manufacturers' guarantees, for example). This data is then combined with the maximum anticipated production rate to determine the equipment's potential to emit. Note that the maximum production rate used in these calculations is based on what is reasonably expected for the facility and source in question during periods of high production and is not based on either "24-7" operations (except for those facilities that actually do operate in such a manner) or an artificially highest permissible emission level for each source. In addition, although these sources are not required to provide emission offsets, they are still subject to AQMD's toxics NSR rules, and as such will not artificially raise their potential to emit or permitted emissions. Therefore, actual emissions are not expected to be considerably different than potential emissions and 80 % of potential emissions provides a reasonable estimate of actual emissions. This conclusion is further supported by potential to emit data for facilities at or below the exemption thresholds. Table 4 shows that there are far more facilities with potentials to emit below the exemption thresholds than at the exemption thresholds.

Table 4
Ratio of Numbers of Facilities with Potential to Emit (PTE) Below Exemptions
Thresholds to Numbers of Facilities with PTE at Exemption Thresholds

| | Facility Count | | | Ratio (Below Threshold: |
|-----------|--------------------------|--------------------------|--------------------|----------------------------|
| Pollutant | PTE Range A ¹ | PTE Range B ² | PTE C ³ | ` At Threshold) |
| VOC | 1,336 | 1,348 | 601 | 4.5:1 |
| NOx | 2,021 | 1,534 | 363 | 10:1 |
| SOx | 545 | 180 | 32 | 23:1 |
| CO | 2,789 | 330 | 10 | 310:1 |
| PM10 | 1,686 | 940 | 188 | 14:1 |

¹ PTE Range A is greater than zero but less than 2 tons per year for VOC, NOx, SOx, and PM10 and is greater than zero but less than 15 tons per year for CO.

Discounting Newly-Banked ERCs to BACT

Rule 1309 – Emission Reduction Credits and Short Term Credits specifies that the amount of emission reductions banked as a new ERC not be "greater than the equipment would have achieved if operating with current Best Available Control Technology (BACT)." No similar requirement exists in the federal CAA. Therefore, the amount of any otherwise qualifying emission reductions not issued as an ERC due to implementation of this provision are surplus. However, EPA has indicated that since AQMD uses the BACT discount at time of generation in lieu of the federally-required BARCT discount at time of use, therefore, AQMD cannot take credit into its offset accounts for the BACT discount of ERCs. In order to address EPA's concerns, AQMD agrees to retroactively remove all credits generated from

² PTE Range B is greater than or equal to two but less than four tons per year for VOC, NOx, SOx, and PM10 and is greater than 15 but less than 29 tons per year for CO.

³ PTE C is four tons per year for VOC, NOx, SOx, and PM10 and is 29 tons per year for CO.

BACT discount of ERCs from its offset accounts, except such credits which AQMD has demonstrated (or demonstrates in the future) exceed the discount that would be required by approved SIP rules and rules scheduled to be approved by AQMD in the following year's rule cycle. AQMD shall notify EPA when making this alternative discount. Specifically, AQMD has identified 6.67 tons of CO per day of BACT discount of ERC credits from 1991 in AQMD's federal CO offset account which are beyond approved SIP rules and rules scheduled to be approved by AQMD in the following year's rule cycle at the time of use. AQMD will, therefore, retain these offsets (which were used in the early 1990s).

SIP Inventory and Growth Assumptions

To date, the AQMD has incorporated a sufficient portion of available tracking system credits into the AQMP at the time of plan revision to assure that the growth assumptions in the plan are consistent with NSR credits used. In order to assure that the SIP assumes that all necessary credits are "in the air," AQMD proposes to provide an enforceable commitment to revise the amount of credits assumed to be "in the air" at the time of the next triennial plan revision required by state law while meeting ROP & attainment demonstration.

Other Potential Credits

PR1315 does not propose to take any credits for surplus reductions such as application of LAER in excess of federal requirements to any increase in emissions at a major stationary source for non-ozone precursors such as SOx, CO and PM10 or the zero BACT threshold. AQMD understands that when and if it wants to use such credits it will be necessary to hold further discussions with EPA and ARB. AQMD is also not presently proposing to take any credits for not having to deduct emission increases resulting from modifications at major sources that do not constitute major modifications pursuant to the NSR Reform Regulations at this time. However, AQMD would like to be able to use such provisions if a project can be demonstrated to not be subject to NSR since it is not a "federal major modification" under NSR reform. AQMD is also currently investing funds resulting from the mitigation fees provided by electrical generating facilities pursuant to Rule 1309.1 – Priority Reserve in various emission reduction projects. Therefore, AQMD may discuss mechanisms for taking credit for such emission reductions with EPA and ARB in the future.

Inventory Issues Related to Minor Source Orphan Shutdowns

Emissions from small permitted sources (*i.e.*, less than 4 tpy of any criteria pollutant or 100 tpy of CO) are treated as area sources in the AQMP inventory. Typically, a base year inventory is prepared by projecting historical activity data to future years on the basis of socioeconomic data provided by SCAG. The surrogates used for emission growth projection are documented in Appendix III, Table 2-3 of the 2003 AQMP. The growth factors for source categories are mostly greater than 1 with a few exceptions. When the growth factor is greater than 1, emissions are projected to grow without taking into account any potential NSR constraint that offsets may not be available. By the same token, if the growth factor is less than 1, future emissions are estimated to be lower than the base year emissions.

EPA staff raised an issue that shutdown credits from source categories that are projected to decrease in the AQMP may not be appropriate to be used as offsets, since the AQMP has already reflected such decreases. However, closer examination of the AQMP process and the

assumptions made in the Plan reveals that use of shutdown credits from source categories with even negative projected growth does not result in double counting of emissions reductions. The AQMP assumes negative growth in some categories and positive growth in others. Further, the positive growth assumptions include no constraints on growth posed by cost or availability of emission offsets (and all existing ERCs are also assumed to be "in the air" independent of the growth projections). Inherent in these AQMP assumptions is the assumption that emission decreases, including decreases associated with negative growth, result in emission credits that can be used to offset emission increases. Therefore, movement of potential emissions from a negative growth category to a positive growth category via appropriately quantified and discounted credits is entirely consistent with the AQMP and its assumptions. Furthermore, even though AQMD has never experienced actual growth greater than that projected in the AQMP, AQMD reevaluates the AQMP with each AQMP revision and makes appropriate changes and corrections as a part of this process (and commits to continue to do so consistent with state law). Finally, there is no restriction on the generation of ERCs by sources in categories with negative projected growth or on the use of such ERCs by sources within other categories. The standard for credits in AQMD's offset accounts should not be higher than for privately held credits.

Summary

The NSR tracking system outlined in PR1315 establishes a very conservative accounting methodology. As indicated earlier, it includes reducing AQMD's previously-reported pre-1990 credits from a 7 % reduction in NOx to a 92 % reduction in PM10 and will change the previously-reported 2002 NSR offset accounts from a 39 % increase in NOx credits to an 81 % reduction in PM10 credits. The overall impact on emission credits resulting from PR1315 are summarized in Table 5 for both the 1990 starting balances and July 2002 running balances. Table 5 also presents the District offset account balances at the end of the 2002-2003 and 2003-2004 reporting periods as calculated consistent with the proposed revised NSR tracking system procedures (refer to Attachment C for a complete discussion of the 2002-2003 and 2003-2004 reporting periods).

Table 5
Summary of AQMD's Offsets Accounts
(Tons per Day)

| VOC | NOx | SOx | СО | PM10 |
|--------|---|--|--|--|
| 92.4 | 25.8 | 18.4 | 34.9 | 34.5 |
| 38.46 | 23.92 | 8.04 | 8.45 | 2.67 |
| 58 % | 7 % | 56 % | 76 % | 92 % |
| 107.65 | 21.60 | 18.76 | 24.09 | 41.24 |
| 68.37 | 28.77 | 10.72 | 7.84 | 7.66 |
| 36 % | -39 % | 43 % | 68 % | 81 % |
| 73.96 | 30.25 | 10.92 | 9.14 | 9.29 |
| 82.57 | 29.19 | 11.24 | 10.20 | 10.49 |
| | 92.4 38.46 58 % 107.65 68.37 36 % 73.96 | 92.4 25.8 38.46 23.92 58 % 7 % 107.65 21.60 68.37 28.77 36 % -39 % 73.96 30.25 | 92.4 25.8 18.4 38.46 23.92 8.04 58 % 7 % 56 % 107.65 21.60 18.76 68.37 28.77 10.72 36 % -39 % 43 % 73.96 30.25 10.92 | 92.4 25.8 18.4 34.9 38.46 23.92 8.04 8.45 58 % 7 % 56 % 76 % 107.65 21.60 18.76 24.09 68.37 28.77 10.72 7.84 36 % -39 % 43 % 68 % 73.96 30.25 10.92 9.14 |

Tables 6 and 7 summarizes the changes between AQMD's existing federal NSR tracking system and the federal NSR tracking system established by PR1315. These tables summarize the existing and proposed revised NSR tracking system for pre-1990 emission reductions and 1990 and beyond emission reductions. Table 8 and 9 summarize the equivalency determination and the backstop provisions of Proposed Rule 1315.

Table 6 Summary of Changes between AQMD'S Existing and Proposed Revised NSR Tracking Systems for Equivalency with Federal Requirements:

Pre-1990 Federal Emission Reductions

| AQMD's Existing NSR Tracking System | AQMD's Proposed Revised NSR Tracking System |
|---|--|
| Starting Balance based on data generated in 1990 from facilities' (both major and minor sources) emission reductions recorded as negative NSR balances. This data has been used and previously reported in all annual NSR status reports. | Initial Starting Balance based on data from facilities' (both major and minor sources) emission reductions recorded as negative NSR balances which were originally verified in 1990/91 and re-verified in 2004/05 and all or some records currently exist. This excludes all other data for emission reductions with no present records. |
| No credit taken for surplus reductions from SOx, CO, and PM10 offsets provided (at 120 %) as ERCs for minor sources. | No Change. |
| No credit taken for the 20 % additional SOx, CO, and PM10 offsets (ERCs) for major sources provided at a ratio of 1.2 to 1.0 compared to 1.0 to 1.0. | No Change. |
| No credit taken for emission reductions created from the application of zero BACT threshold ⁽¹⁾ . | No Change. |

[&]quot;Zero BACT threshold" refers to AQMD's requirement that BACT applies to all emission increases (no matter how small) at all sources (no matter how low their potential to emit).

Table 7 Summary of Changes between AQMD'S Existing and Proposed Revised NSR Tracking Systems for Equivalency with Federal Requirements:

1990 and Beyond Federal Emission Reductions

| AQMD's Existing NSR Tracking System | AQMD's Proposed Revised NSR Tracking System |
|--|--|
| Remaining pre-1990 credits eligible for use until depleted. | Remaining pre-1990 credits eligible for use until the end of 2005; no pre-1990 credits will be used post-2005. |
| No credit taken for orphan shutdowns from minor sources. | Orphan shutdowns include shutdowns of both major and minor sources. |
| No further discount/adjustment applied to estimate actual emissions. | All orphan shutdowns will be discounted/ adjusted to reflect estimated actual emissions. |
| No further discount/adjustment for orphan shutdowns due to BARCT at time of use. | All orphan shutdowns will be discounted/ adjusted to BARCT at time of use by discounting balances "carried over" from one year to the next. |

Table 7 (continued)

1990 and Beyond Federal Emission Reductions

| | AQMD's Proposed Revised NSR Tracking |
|--|--|
| AQMD's Existing NSR Tracking System | System |
| BACT discount credit portion of newly-issued ERCs eligible for crediting to AQMD's offset accounts (as previously approved by EPA). | No BACT-discount credits from any past or future-issued ERCs will be eligible for crediting to AQMD's offset accounts except those for specific projects for which staff has demonstrated or demonstrates that the BACT discount is beyond approved SIP rules and rules scheduled to be approved by AQMD in the following year's rule cycle at the time of use of the credits. |
| VOC and NOx offsets provided by AQMD for federal major sources exempted by AQMD at a ratio of 1.2 to 1.0. | No Change. |
| No credit taken for surplus reductions from SOx, CO, and PM10 offsets provided by AQMD for major sources exempted by AQMD at a ratio of 1.2 to 1.0 compared to 1.0 to 1.0. | SOx, CO, and PM10 offsets provided by AQMD for major sources exempted by AQMD at a ratio of 1.0 to 1.0 ⁽¹⁾ . |
| No credit taken for surplus reductions created from offsets (ERCs) provided (at 120 %) by minor sources which are not exempt from offset requirements under AQMD NSR rules (i.e., > 4 but < 10 TPY of VOCs and NOx, etc.). No credit taken for surplus reductions created | Credit taken for surplus reductions created from offsets (ERCs) provided (at 120 %) by minor sources which are not exempt from offsets requirements under AQMD rules (i.e., > 4 but < 10 TPY of VOCs and NOx, etc.). Credit taken for surplus reductions created |
| from the 20 % additional SOx, CO, and PM10 offsets (ERCs) provided by major sources at 1.2 to 1.0 ratio compared to 1.0 to 1.0 ratio. | from the 20 % additional SOx, CO, and PM10 offsets (ERCs) provided by federal major sources at a ratio of 1.2 to 1.0 compared to 1.0 to 1.0 ratio. |
| No credit taken for emission reductions created from the application of zero BACT threshold ⁽¹⁾ . | No Change. |
| No credit taken for application of LAER in excess of federal requirements to any increase in emissions at a major stationary source for non-ozone precursors (SOx, CO, and PM10). | No credit taken for application of LAER in excess of federal requirements to any increase in emissions at a major stationary source for non-ozone precursors (SOx, CO, and PM10) at this time. If AQMD decides to pursue use of such credits in the future, further discussions with EPA will be necessary. |
| No SIP adjustment for NSR tracking system. | Appropriate assumptions in the SIP to reflect NSR tracking system with commitment to make up any shortfall in next AQMP revision pursuant to state law. |

[&]quot;Zero BACT threshold" refers to AQMD's requirement that BACT applies to all emission increases (no matter how small) at all sources (no matter how low their potential to emit).

USE OF CREDITS

The above-described credits will be used to fund the Offset Budget as adopted by AQMD's Governing Board in Rule 1309.2 in addition to the current use of credits to provide offsets for federal major sources which are exempt from offset requirements under AQMD Regulation XIII (Rule 1304) and to provide Priority Reserve offsets (Rule 1309.1) in order to provide equivalence to federal NSR requirements. As indicated earlier, a list of Regulation XIII provisions for which sources are exempt from offset requirements and AQMD uses its offset accounts to demonstrate equivalency is presented in Attachment B.

DEMONSTRATIONS OF EQUIVALENCY

PR1315 directs the Executive Officer to make annual equivalency demonstrations in two steps. In step one, AQMD will make a preliminary determination of equivalency (PDE) within twelve months of the close of each reporting period. Such PDE will be a very conservative determination based on the reporting period's combined debits but will not include the credits from that reporting period. Therefore, the PDE will represent a "worst case" analyses. Provided the PDE demonstrates equivalency, the orphan shutdowns for the reporting period will be reported (and credited) in the subsequent PDE, as illustrated in Figure 1. However, if the PDE does not demonstrate equivalency, AQMD will, as step two, make a final determination of equivalency (FDE), which will include the reporting period's orphan shutdown credits. The FDE will be prepared within six months of the PDE time frame, as illustrated in Figure 2. For example, the PDE for reporting year B (including all debits for years A and B and orphan shutdown credits for year A only) will be completed by the end of reporting year C. Provided this preliminary annual determination for year B demonstrates equivalency, the year B orphan shutdowns will be included in the preliminary annual determination for year C (to be completed

Figure 1
Equivalency Demonstration Timeline
(PDE Demonstrates Equivalency)

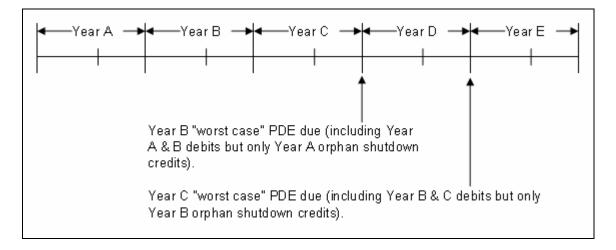
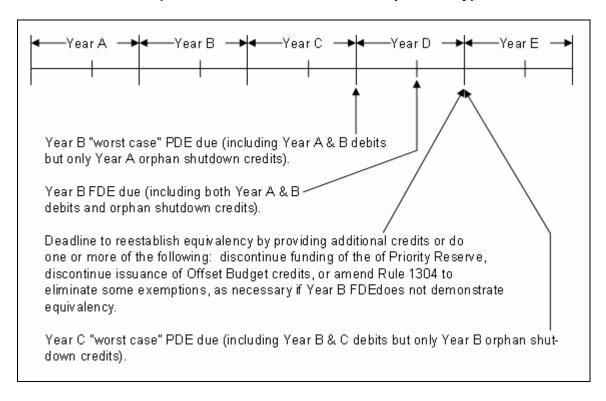


Figure 2
Equivalency Demonstration Timeline
(PDE Does Not Demonstrate Equivalency)



by the end of year D). On the other hand, if the PDE for year B does not demonstrate equivalency, a FDE incorporating year B's orphan shutdown credits will be prepared within six months of the end of year C. In lieu of preparing a PDE and an FDE for a particular reporting period, the Executive Officer may elect to merge the PDE into the FDE provided the FDE includes all of the elements of the PDE which it subsumes and it complies with the completion and reporting requirements of the subsumed PDE. The offset accounting will be conducted in the following order:

- 1. Subtract year B's debits from any remaining pre-1990 credits (1990-2005 timeframe only); then
- 2. Subtract any debits remaining after step 1 from any post-1990 credits remaining from year A; then
- 3a. If there are no remaining debits, discount the post-1990 credits remaining from step 2 as described in the discussion of Surplus Discount at Time of Use. Then add Year B's credits to the discounted post-1990 credits remaining from year A.
- 3b. If there are any remaining debits from step 2 (meaning there are not any post -1990 credits remaining), subtract year B's remaining debits from year B's credits.

PR1315 specifies that each PDE and FDE will be presented to AQMD's Governing Board in a report from the Executive Officer ("Board Letter") at a public meeting of the AQMD Governing Board, no later than the second regularly-scheduled Governing Board meeting after the conclusion of the applicable twelve-month (PDE) or six-month (FDE) preparation period. The

reported determinations of equivalency will include the balances in AQMD's offset accounts, as well as summaries of credit and debit data by category such as Priority Reserve, Community Bank, and Rule 1304 exemptions.

In addition, pursuant to PR1315, AQMD will evaluate the future availability of credits in AQMD's offset accounts by conducting a two-year projection of debits, credits, and account balances in conjunction with (but not as a part of) each determination of equivalency. This analysis will include projected debits, credits, and offset account balances for each of the two years following the subject reporting period. The projections for each pollutant will be based on the average of the previous five years' credits and debits for that pollutant. The Executive Officer will not make quarterly allocations to the Priority Reserve for any pollutant during a time when AQMD's offset account for that pollutant is not projected to remain positive⁶. The purpose of the projections is to prospectively determine if sufficient offsets will remain in AQMD's offset accounts to continue funding the Priority Reserve; they are not intended to demonstrate equivalency retrospectively.

TRACKING AND BACKSTOP

PR1315 includes backstop provisions to be triggered in the event that an FDE does not demonstrate equivalency. In such an event, the backstop provisions would require AQMD to take one or more of the following actions to the extent necessary to correct the credit shortfall:

- Provide additional credits within six months of the FDE; such credits could be derived through AQMD purchase of credits, through AQMD funding of emission reduction projects using quantification protocols or rules approved by EPA on a case-by case or programmatic basis, application of LAER in excess of federal requirements⁷, or other approved sources of credits.
- Suspend issuance of both Priority Reserve and Offset Budget credits (Rules 1309.1 and 1309.2) within 90 days and not resume the issuance of any such credits until AQMD has demonstrated that equivalency has been reestablished. Equivalency may be reestablished through procurement of additional offsets and/or appropriate program modifications.

⁶ Offsets provided from the Priority Reserve are debited from AQMD's offset accounts for the period during which the permit was issued (*i.e.*, for the timeframe they are used) whereas the quarterly allocations made to the Priority Reserve pursuant to Rule 1309.1(a) do not constitute debits from AQMD's offset accounts. The newly-proposed future years' projections of balances in AQMD's offset accounts will include projected use of Priority Reserve and Offset Budget offsets as well as sources exempted pursuant to Rule 1304. A significant portion of the quarterly allocations to the Priority Reserve are used by sources which are not subject to federal offset requirements (*i.e.*, federal minor sources) and, therefore, do not need to be debited from AQMD's offset accounts for purposes demonstrating equivalency with federal NSR requirements.

⁷ Precise quantification of all surplus credits generated through application of LAER in excess of federal requirements may be extremely resource intensive. Therefore, AQMD may, with EPA approval, demonstrate that such application of LAER has generated at least enough surplus reductions to make up for the shortfall using very conservative assumptions to estimate the surplus reductions.

 Amend Rules 1309.1, 1309.2 and/or 1304 to restrict access by specific sources to the Priority Reserve and/or to eliminate certain categories of offset exemptions, respectively, to be identified during the rulemaking process.

Table 8
Summary of Changes between AQMD'S Existing and Proposed Revised Determinations of Equivalency

| AQMD's Existing NSR Offset Account and Tracking System | AQMD's Proposed Revised NSR Offset Account and Tracking System |
|---|---|
| No specific deadlines and equivalency demonstration typically completed within two years of the close of the reporting period ⁸ . | Preliminary (worst case) determination of equivalency (PDE) completed within one year of the close of the reporting period. If PDE does not verify equivalency, final determination of equivalency (FDE) completed within six months of the PDE timeframe. |
| No projections of future equivalency done with annual equivalency demonstrations | All annual demonstrations of equivalency (FDE or PDE) will be accompanied by projected NSR offset account balances for the two years following the subject reporting period. These projections are for the purpose of prospectively determining if sufficient offsets remain in AQMD's accounts to continue providing Priority Reserve offsets and will not constitute a part of the determinations of equivalency. |
| Funding of Priority Reserve conducted quarterly on an automatic basis without utilization of any projections of AQMD's offset account balances. | Executive Officer to exercise the option to discontinue funding the Priority Reserve upon finding that AQMD's offset accounts do not include sufficient credits. This will include discontinuation of funding when offset account balance projections in the most recent determination of equivalency do not indicate equivalency for the current reporting period. |

⁸ However, AQMD did not previously prepare an equivalency demonstration for the period post 2002 until now (see Appendix C) in order to address EPA's concerns and, as a result, utilize the proposed revised NSR Tracking System procedures.

Table 9
Summary of Changes between AQMD'S Existing and Proposed Revised Backstop Measures:

| AQMD's Existing NSR Offset Account and Tracking System | AQMD's Proposed Revised NSR Offset Account and Tracking System |
|--|---|
| No backstop measures identified for addressing potential shortfalls in AQMD's offset accounts. | Several backstop provisions identified in the proposed tracking rule, one or more to be implemented as needed to return AQMD's NSR program to equivalency with federal NSR requirements and correct any credit shortfall: Provide additional credits within six months of the FDE; to be derived from AQMD purchase of credits, AQMD funding of emission reduction projects using quantification protocols or rules approved by EPA, application of LAER in excess of federal requirements, or other EPA-approved credit sources. Suspend issuance of both Priority Reserve and Offset Budget credits within 90 days, not to be resumed until equivalency has been reestablished. Amend Rules 1309.1, 1309.2, and/or 1304 to eliminate access to the Priority Reserve by certain sources and/or certain offset exemptions, respectively. |

CEQA ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA), the SCAQMD is the Lead Agency and has reviewed the proposed project pursuant to CEQA Guidelines §15002 (k)(1). Because the proposed project specifies New Source Review reporting procedures and, therefore, is administrative in nature, it can be seen with certainty that there is no possibility that the proposed project in question has the potential to have a significant adverse effect on the environment. Thus, the proposed project is exempt from CEQA pursuant to CEQA Guidelines §15061(b)(3) - Review for Exemption. A Notice of Exemption will be prepared pursuant to CEQA Guidelines §15062 - Notice of Exemption. The Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties immediately following the adoption of the proposed project.

SOCIO-ECONOMIC IMPACTS

PR 1315 will formalize the accounting procedures the AQMD will use in demonstrating the equivalency of Regulation XIII to the federal new source review requirements for sources which do not provide their own offsets yet are subject to the federal NSR requirements for offsets. It

will require annual equivalency demonstrations within twelve months after the close of each reporting period. Additionally, a two-year projection of credits and debits will be made along with each equivalency demonstration following each reporting period. The AQMD will be able to stop funding of the Priority Reserve and will be required to implement backstop measures if there is a shortfall in its offset accounts.

The elimination of banked credits from BACT discount, annual discount of newly-generated credits, and significant adjustments (overall 60 % reductions) to the pre-1990 balances and the removal of pre-1990 balances after calendar year 2005 will reduce the number of credits in the AQMD's offset accounts. On the other hand, minor source shutdowns will increase credits available. However, it is too speculative to project the amounts of all these categories for future years until the close of each period.

The AQMD's offset accounts have not experienced a shortfall historically. The backstop provisions would forestall future shortfalls. The impact of backstop provisions cannot be evaluated at this time due to their speculative nature. However, the suspension of offset funding within 90 days of a demonstrated FDE shortfall, if applicable, might delay the start of new sources since currently there is no stipulation as to funding suspension.

AQMP AND LEGAL MANDATES

The California Health and Safety Code requires the AQMD to adopt an Air Quality Management Plan (AQMP) to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code requires that the AQMD adopt rules and regulations that carry out the objectives of the AQMP. While Proposed Rule 1315 is not a control measure included in the AQMP, its requirements are consistent with the AQMP objectives.

RESOURCE IMPACTS

Due to the volume and complexity of analysis required, it is estimated that implementation of PR1315 will require one full time employee and \$150,000 in programming costs for enhancements to AQMD's New Source Review computer program.

COMMENTS AND RESPONSES TO COMMENTS

Comment: A chart showing the impacts of the proposed amendments to Rule 1309.1 scheduled

for a Public Hearing in September 2006 might be included in the staff report and

discussed.

Response: The impacts of the proposed amendments to Rule 1309.1 are thoroughly addressed

in the staff report for that proposed rulemaking. For example, the preliminary draft staff report for the proposed amendments to Rule 1302 and Rule 1309.1 includes a table summarizing estimated demand for Priority Reserve offsets for each of the categories of sources which are proposed to be given short-term access to the Priority Reserve (*i.e.*, in-basin electrical generating facilities (EGF), energy projects of regional significance, out-of-basin EGFs, and biosolids projects). The totals

presented in that table are reproduced below for reference (in pounds per day), along with the fractions of AQMD's 2004 offset account balances and of AQMD's projected 2006 offset account balances the estimated demand represents for each pollutant (as a percent):

| | VOC | NOx | SOx | СО | PM10 |
|---------------|-------|--------|-------|-------|-------|
| Pre-2010 | 6,404 | 41 | 1,479 | 8,827 | 3,825 |
| Total | | | | | |
| Post-2010 | 491 | 22 | | 113 | 22 |
| Total | | | | | |
| Fraction of | 4.2 % | 0.11 % | 6.6 % | 44 % | 18 % |
| 2004 Balance | | | | | |
| Fraction of | 4.9 % | 0.12 % | 16 % | 40 % | 15 % |
| 2006 Balance* | | | | | |

²⁰⁰⁶ balances are projected, refer to Attachment C.

Please refer to the staff report for Proposed Rule 1302 and Proposed Rule 1309.1 for a complete discussion of the impact of these proposed amendments.

Comment: It is still unclear if AQMD intends to require CO credits of sources given the

pending attainment demonstration.

Response: CO offsets will be required until such time as US EPA re-designates this region as

an attainment area..

Comment: At the end of the first paragraph in the Executive Summary, it would be appropriate

to add some comforting words to the effect that private holders of ERC certificates

are not impacted by this action.

Response: A statement to this effect has been added to the Executive Summary.

Comment: Please clarify that surplus adjustments at time of use at PR1315(b)(4), which we

understand will be done on a programmatic basis, will be allowed the opportunity

for public comment and Board approval.

Response: The short timelines which apply to the completion of each demonstration of

equivalency (one year for each PDE and an additional six months for each FDE) make a public comment period and Governing Board approval of the surplus adjustments infeasible prior to completion of each demonstration. However, these discounts will be included in the reports to the Governing Board prepared for each

demonstration of equivalency. These reports, including the surplus at time of use adjustments, will be subject to public comment and Governing Board review and approval. Therefore, public comment and Governing Board review and approval prior to completion of each demonstration of equivalency is unnecessary and would

be redundant.

Comment: It is unclear why PR1315(b)(2) and PR1315(b)(3)(A)(iv) discuss offset ratios for extreme non-attainment air contaminants and their precursors when we are

currently designated as Severe-17.

Response:

The federally-required offset ratio for extreme non-attainment air contaminants and their precursors is 1.2:1.0. The proposed rule language was written to be consistent with federal requirements. This language eliminates the need to amend this rule if AQMD's attainment status changes in the future. The appropriate offset ratios will be used in each demonstration of equivalency based on the attainment status(es) that pertain to the subject reporting period for each air contaminant.

Comment: At PR1315(b)(3)(A)(i) and (ii), we cannot find definitions of the terms "orphan shutdowns" and "orphan reductions" within the text of the proposed rule or the text of Proposed Amended Rule 1302.

Response:

Definitions of "orphan shutdown" and "orphan reduction" are included in the version of Proposed Amended Rule 1302 to be released on or before August 9, 2006.

Comment: At PR1315(b)(3)(A)(iii), will the major source threshold be considered to be 25 TPY for VOC and NOx?

Response:

The major source thresholds (the potential to emit thresholds below which a facility is a minor source and at or above which a facility is a major source) are contained in Rule 1302. Therefore, the thresholds which apply at any point in time are those which are contained in the most-recently SIP-approved version of Rule 1302 at that time. Currently, those thresholds for VOC and NOx are ten tons per year in the South Coast Air Basin, 25 tons per year in SCAQMD's portion of the Salton Sea Air Basin, and 100 tons per year in SCAQMD's portion of the Mojave Desert air Basin.

Comment: At, PR1315(b)(3)(A)(v), the "Community Bank" term doesn't actually exist in name within the New Source Review rules.

Response:

The term "Community Bank" refers to the meaning established and used by the June 28, 1990 and May 3, 1991 revisions of Rule 1309.1.

Comment: At PR1315(b)(3)(B)(i), how can a paragraph be pursuant to itself [(b)(3)(B)]?

Response:

The references in PR1315b)(3)(i) have been corrected.

Comment: Subparagraphs (b)(3)(D), (b)(3)(E), and (b)(3)(F) do not seem to exist.

Response:

The references in PR1315b)(3)(ii) have been corrected.

Comment: In the backstop provisions at PR1315(e), why wouldn't the Offset Budget procedures in Rule 1309.2 be discontinued first?

Response:

As proposed to be amended September 8, 2006, Rule 1309.1 gives the Executive Officer the authority to discontinue funding of the Priority Reserve without Governing Board action. Rule 1309.2 does not give the Executive Officer similar authority regarding the Offset Budget. Therefore, discontinuation of funding of the Offset Budget would require Governing Board action and could not be complete in as short a timeframe as could discontinuation of funding the Priority Reserve. Note that the authority to discontinue funding of the Priority Reserve does not suggest

that the Executive Officer has the authority to discontinue use of the Priority Reserve so long as it continues to have positive account balances.

DRAFT FINDINGS

Before adopting, amending or repealing a rule, the AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in Health and Safety Code Section 40727. The draft findings are as follows:

Necessity – The AQMD Governing Board has determined that a need exists to adopt Proposed Rule 1315 – New Source Review Tracking System, to formalize AQMD's accounting methodology for tracking changes to its internal NSR offset accounts for the purpose of demonstrating programmatic equivalency between AQMD's NSR program and federal NSR requirements.

Authority – The AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 40000, 40702, 40725 through 40728, and 42300 *et seq.* of the California Health and Safety Code.

Clarity – The AQMD Governing Board has determined that Proposed Rule 1315 – New Source Review Tracking System, as proposed to be adopted is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency – The AQMD Governing Board has determined that Proposed Rule 1315 – New Source Review Tracking System, as proposed to be adopted is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication – The AQMD Governing Board has determined that Proposed Rule 1315 – New Source Review Tracking System, as proposed to be adopted, does not impose the same requirements as any existing state or federal regulation and is necessary and proper to execute the power and duties granted to, and imposed upon, the AQMD.

Reference – The AQMD Governing Board, in adopting this rule, references the following statutes which the AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 42300 et seq. and Clean Air Act Sections 172, 173, and 182(e).

CONCLUSIONS AND RECOMMENDATIONS

The comparative analysis referred to in Health and Safety Code Section 40727.2 is not required because PR1315 does not establish a new emissions limit, make an existing limit more stringent, or impose new or more stringent monitoring, reporting, or recordkeeping

requirements on a source. Similarly, the proposed rule will not impose any requirements on regulated sources so the incremental cost effectiveness analysis identified in Health and Safety Code Section 40920.6 (which only applies to adoption of rules or regulations which require use of best available retrofit control technology or which are feasible measures pursuant to Health and Safety Code Section 40914) is not required.

Staff recommends adoption of Proposed Rule 1315 for the reasons stated in this staff report.

ATTACHMENT A AQMD'S NSR OFFSET TRACKING—UPDATED RUNNING BALANCES

As explained in detail in the main body of this staff report, AQMD staff has devoted considerable resources to re-evaluating and revalidating its offset accounts:

- The pre-1990 credits were adjusted and reduced to reflect the quantities for which AQMD retains full or partial records documenting the credit amounts;
- The post-1990 credits were updated to reflect the eligibility and quantification requirements contained in PR1315;
- The post-1990 debits were updated to reflect the eligibility and quantification requirements contained in PR1315; and
- The accounting procedures were updated to reflect the procedures contained in PR1315.

These updates are all discussed in greater detail in the main body of this staff report. Their combined impacts are significant changes in both the pre-1990 and post-1990 balances in AQMD's offset accounts (overall 60 % and 42 % reductions, respectively, in the pre-1990 and 2002 offset account balances). These changes are summarized in Tables 1, 3, and 5. Table A-1 provides much greater line-by-line detail regarding the offset accounts over time.

ATTACHMENT B: LIST OF SOURCES EXEMPT FROM OFFSET REQUIREMENTS AND PROVISIONS COVERED BY EQUIVALENCY SHOWING

The following sources are exempt from AQMD's NSR offset requirements or their offsets from AQMD's Priority Reserve or Offset Budget but are not exempt from federal NSR offset requirements. Therefore, use of these exemptions or use of Priority Reserve or Offset Budget offsets by major sources constitutes debits from AQMD's offset accounts and is reflected in AQMD's demonstrations of equivalency. Items listed below in italics are not currently in AQMD's NSR program but are proposed for inclusion into Rule 1309.1 – Priority Reserve by the Governing Board at a Public Hearing currently scheduled for September 8, 2006.

Rule 1304 - Exemptions:

- (1) Replacements need to be tracked because of PTE Baseline in 1304 (a)(1) Emissions will generally be lower due to BACT. AQMD will demonstrate through representative analysis that emission reductions from BACT exceed those needed for offsets pursuant to actual potential analysis.
- (2) Relocations need to be tracked because of PTE baseline in 1304(c)(1) Emissions will generally be lower due to BACT.
- (3) Abrasive Blasting Equipment
- (4) Air Pollution Control Strategies
- (5) Emergency Equipment
- (6) Portable Internal Combustion Engines
- (7) Methyl Bromide Fumigation
- (8) Replacement of Ozone Depleting Compounds
- (9) Portable Equipment
- (10) Regulatory Compliance
- (11) Regulatory Compliance for Essential Public Services
- (12) Facility Exemption (VOC, NOx, SOx, or PM10 PTE less than 4 tons per year or CO PTE less than 29 tons per year)
- (13) Resource Recovery
- (14) Electric Utility Boilers Alt Energy

Rule 1309.1 - Priority Reserve

The Priority Reserve, which is funded from AQMD's offset accounts, provides a source of emission offsets for certain priority categories of sources. Except as noted below, these offsets are provided by AQMD at no cost to the operator. The various categories of sources eligible to access the Priority Reserve are summarized below:

- (1) Innovative Technology
 Use of a technology that results in significantly lower emissions than would the use of BACT.
- (2) Research Operations
 Projects with the purpose of "investigation, [experimentation], or research to advance the state of knowledge or the state-of-the-art." Limited to at most two years.
- (3) Essential Public Service Sources in the following categories located at facilities where all sources operate at or below BARCT levels
 - Publicly-owned sewage facilities;
 - Prisons;
 - Police facilities:
 - Fire fighting facilities;
 - Schools;
 - Hospitals;
 - Construction/operation of landfill gas control or processing facility;
 - Water delivery operations;
 - Public transit; and
 - Public Biosolids processing facilities.
- (4) Electrical Generating Facilities (2000 through 2003)

Specified categories of facilities that generate electricity; meet BARCT for all sources; applicant has conducted a due diligence effort to acquire ERCs on the open market; applicant has applied for California Energy Commission certification or AQMD permit to construct during calendar years 2000, 2001, 2002, or 2003; and applicant pays the following fee for each pound of Priority Reserve offsets obtained (VOC and NOx not available for these sources):

- \$25,000 per pound PM10 and day;
- \$8,900 per pound SOx per day; and
- \$12,000 per pound CO per day.
- (5) Electrical Generating Facilities, Energy Projects of Regional Significance, Electrical Generating Facilities in Downwind Air Basins, and Non-Public Biosolids Processing Facilities (2005 though 2008)

Electrical generating facilities, energy projects of regional significance, electrical generating facilities in downwind air basins, and non-public biosolids processing facilities that meet BARCT for all sources; applicant has conducted a due diligence effort to acquire ERCs on the open market; applicant has applied for California Energy Commission certification or AQMD permit to construct during calendar years 2005 2006, 2007, or 2008; and applicant pays the following fee for each pound of Priority Reserve offsets obtained (VOC and NOx not available for these sources):

- *\$50,417 per pound PM10 and day;*
- \$15,083 per pound SOx per day; and

- \$12,000 per pound CO per day;
- (6) Electrical Generating Facilities in Downwind Air Basins, (2005 though 2008)
 Electrical generating facilities in downwind air basins, that meet BARCT for all sources;
 applicant has conducted a due diligence effort to acquire ERCs on the open market;
 applicant has applied for California Energy Commission certification or AQMD permit
 to construct during calendar years 2005 2006, 2007, or 2008; and applicant pays the
 following fee for each pound of Priority Reserve offsets obtained (NOx, SOx, CO, and
 PM10 not available for these sources):
 - \$1,410 per pound VOC per day.

Rule 1309.2 - Offset Budget

Sources that are not exempt from offset requirements pursuant to Rule 1304 and are not eligible to obtain offsets from the Priority Reserve may obtain offsets from the Offset Budget provided they meet certain criteria¹:

- (1) All sources the applicant owns or operates comply with BARCT;
- (2) Applicant has conducted a due diligence effort to acquire ERCs on the open market;
- (3) Applicant pays the appropriate mitigation fee (based on pollutant and pounds of offsets obtained) specified in Regulation III Fees; and
- (4) Applicant publishes a notice (prepared by AQMD's Executive Officer) in a newspaper of general circulation in each of the four counties in AQMD, sends copies of the notice to the Administrator of EPA's Region IX and the Executive Officer of the California Air Resources Board, and responds to all public comments received within 30 days of publication.

¹ The Offset Budget has not been implemented because it has not been approved into the State Implementation Plan.

ATTACHMENT C PROVISIONAL FINAL DETERMINATIONS OF EQUIVALENCY FOR 2002-2003 AND 2003-2004

SYNOPSIS

This report presents *provisional* final determinations of equivalency for August 2002 through July 2003 and August 2003 through July 2004. As such, it provides provisional information regarding the status of Regulation XIII – New Source Review (NSR) in meeting federal NSR requirements and shows that AQMD's NSR program was in compliance with applicable federal requirements during the periods covered. Staff has not finalized all elements of the data analysis, but has taken a conservative approach so does not expect large changes in the results (small increases in some ending offset account balances may occur). A second report will be prepared presenting the final determinations upon completion of staff's data analysis. This second report will satisfy the reporting requirements of subdivision (b) of Rule 1310 – Analysis and Reporting and of subdivisions (c) and (d) of Proposed Rule 1315 – New Source Review Tracking System (PR1315).

SUMMARY

AQMD's NSR Rules and Regulations are designed to support efforts to attain and maintain compliance with the federal and state air quality standards and to ensure that emissions increases from new and modified sources do not interfere with such efforts, while maintaining economic growth in the South Coast region. Regulation XIII - New Source Review regulates emissions increases and accounts for all emission changes (both increases and decreases) from the permitting of new, modified, and relocated sources within AQMD with the exception of NOx and SOx sources subject to Regulation XX – Regional Clean Air Incentives Market (RECLAIM)¹.

The annual reports on the status of Regulation XIII (final determinations of equivalency, or FDE) cover NSR activities for twelve-month periods and the last report submitted to the Board on April 2, 2004 covered the period from August 2001 through July 2002 for both federal and state NSR requirements. The provisional FDEs presented in this report cover the periods August 2002 through July 2003 and August 2003 through July 2004 and demonstrate compliance with federal NSR requirements by establishing aggregate equivalence with federal offset requirements for sources which obtain their offsets from AQMD. A separate FDE report presenting the FDEs for these two time periods will be prepared by AQMD staff and submitted to the Governing

While the RECLAIM program is different than command and control rules for NOx and SOx and it provides greater regulatory flexibility to businesses, its NSR requirements, as specified in Rule 2005, are designed to comply with the governing principles of NSR contained in the federal Clean Air Act (CAA) and the California State Health and Safety Codes.

Board. This FDE will also address equivalency between AQMD's NSR program and state NSR requirements.

The provisional results of the analysis for the August 2002 through July 2003 and August 2003 through July 2004 timeframes are summarized below in Tables C-1 and C-2, respectively. Additionally, projected credits, debits, and balances for the August 2004 through December 2005 and the January 2006 through December 2006 timeframes are presented in Table C-3. These results demonstrate that there were, and it is projected that there will be, adequate offsets available to mitigate all emission increases during these reporting periods. This report, therefore, demonstrates that AQMD's NSR program continues to meet federal offset requirements and is equivalent to those requirements on an aggregate basis².

Table C-1
August 2002 through July 2003 Starting Balances,
Net Activity, and Ending Balances for AQMD's Offset Accounts

| DESCRIPTION | VOC | NOx | SOx | СО | PM10 |
|-----------------------------------|--------|--------|-------|--------|-------|
| Starting Balance* (ton/day) | 68.37 | 28.77 | 10.72 | 7.84 | 7.66 |
| Total Credits** (lb/day) | 13,515 | 5,908 | 545 | 7,149 | 3,480 |
| Total Debits** (lb/day) | -1,424 | -2,066 | -135 | -4,544 | -211 |
| Sum of Credits/Debits** (lb/day) | 12,091 | 3,842 | 410 | 2,605 | 3,269 |
| Sum of Credits/Debits** (ton/day) | 6.05 | 1.92 | 0.20 | 1.30 | 1.63 |
| Surplus Adjustment*** (ton/day) | -0.46 | -0.44 | 0.00 | 0.00 | 0.00 |
| Ending Balance**** (ton/day) | 73.96 | 30.25 | 10.92 | 9.14 | 9.29 |

^{*} The revised 2002 running balances as shown in Table 5 of the staff report and Table A-1 of Attachment A.

**** "Ending Balance" equals the "Starting Balance" plus the sum of credits and debits and plus any surplus adjustments.

^{**} Refer to PR1315(b) and the staff report to which this report is attached for an explanation of the sources of credits and debits. Credits are shown as positive and Debits as negative, while sum of Credits/Debits and Net Activity are shown as positive or negative, as appropriate.

^{***} Surplus at the time of use discount pursuant to PR1315(b)(4).

² AQMD's NSR program is deemed to be equivalent to federal offset requirements because AQMD's ending offset account balances remained positive, indicating there were adequate offsets during this period.

Table C-2
August 2003 through July 2004 Net Activity, Starting Balances, and Ending Balances for AQMD's Offset Accounts

| DESCRIPTION | VOC | NOx | SOx | СО | PM10 |
|-----------------------------------|--------|--------|-------|--------|-------|
| Starting Balance* (ton/day) | 73.96 | 30.25 | 10.92 | 9.14 | 9.29 |
| Total Credits** (lb/day) | 18,795 | 3,912 | 1,833 | 5,634 | 2,639 |
| Total Debits** (lb/day) | -539 | -1,610 | -3 | -3,521 | -245 |
| Sum of Credits/Debits** (lb/day) | 18,256 | 2,302 | 1,830 | 2,113 | 2,394 |
| Sum of Credits/Debits** (ton/day) | 9.13 | 1.15 | 0.92 | 1.06 | 1.20 |
| Surplus Adjustment*** (ton/day) | -0.52 | -2.21 | -0.59 | 0.00 | 0.00 |
| Ending Balance**** (ton/day) | 82.57 | 29.19 | 11.24 | 10.20 | 10.49 |

^{*} Same as "Ending Balance" from Table C-1

^{**} Refer to PR1315(b) and the staff report to which this report is attached for an explanation of the sources of credits and debits. Credits are shown as positive and Debits as negative, while sum of Credits/Debits are shown as positive or negative, as appropriate.

^{***} Surplus at the time of use discount pursuant to PR1315(b)(4).

^{**** &}quot;Ending Balance" equals the "Starting Balance" plus the sum of credits and debits and plus any surplus adjustment.

Table C-3
Projected Credits, Debits, and Balances for August 2004 through
December 2005 and January 2006 through December 2006
(Tons perDay)

| DESCRIPTION | VOC | NOx | SOx | СО | PM10 |
|---|--------|-------|-------|-------|-------|
| 8/2004 Starting Balance* | 82.57 | 29.19 | 11.24 | 10.20 | 10.49 |
| 8/2004-12/2005 Credits** | 7.58 | 2.79 | 0.67 | 2.88 | 1.89 |
| 8/2004-12/2005 Debits** | -1.04 | -1.11 | -0.02 | -2.36 | -0.43 |
| 8/2004-12/2005 Surplus Adjustment | -1.82 | -0.97 | -0.19 | 0.00 | 0.00 |
| 12/2005 Ending Balance** | 87.29 | 29.90 | 11.70 | 10.72 | 11.95 |
| Removal of Unused Initial Balances** | -20.89 | -3.85 | -7.40 | 0.00 | 0.00 |
| 1/2006 Starting Balance** | 66.40 | 26.05 | 4.30 | 10.72 | 11.95 |
| 1/2006-12/2006 Credits** | 5.35 | 1.97 | 0.47 | 2.03 | 1.34 |
| 1/2006-12/2006 Debits** | -0.74 | -0.78 | -0.01 | -1.67 | -0.30 |
| 1/2006-12/2006 Surplus Adjustment | -1.31 | -0.76 | -0.13 | 0.00 | 0.00 |
| 12/2006 Ending Balance** | 69.70 | 26.48 | 4.63 | 11.08 | 12.99 |

^{*} Same as "Ending Balance" in Table C-2.

BACKGROUND

AQMD originally adopted its NSR program in 1976. U.S. EPA approved AQMD's NSR program into California's State Implementation Plan initially on January 21, 1981 (46FR5965) and again on December 4, 1996 (61FR64291). The original program has evolved into the current version of the Regulation XIII rules in response to federal and state legal requirements and the changing needs of the local environment and economy. The most recent amendments to the NSR rules were adopted on December 6, 2002 to facilitate and provide additional options for credit generation. The most notable changes in those amendments are summarized below:

• Short Term Credits (STC)

Rules 1303 – Requirements and 1309 – Emission Reduction Credits and Short Term Credits now provide for the generation and use of short term offsets for stationary sources. These credits can be generated by stationary sources (Emission Reduction Credits or ERCs), mobile sources (MSERCs), and area sources (ASERCs).

• Extended ERC Filing Deadline

Rule 1309 – Emission Reduction Credits and Short Term Credits' deadline to apply to bank an ERC was extended from 90 days after to 180 days after the emission reduction occurring.

Offset Budget

Rule 1309.2 – Offset Budget creates a "bank of last resort" to provide offsets for sources that are unable to otherwise obtain needed offsets.

^{**} Projected pursuant to PR1315(d).

Also in April and November 2001, AQMD amended Rule 1309.1 to allow electric generating facilities (EGFs) to be able to access the Priority Reserve to purchase emission credits. The amendments to Rule 1309.1 were approved by EPA into the SIP on June 19, 2006. EPA has not yet taken SIP action on the amendments to Rules 1303 and 1309 or the adoption of Rule 1309.2. EPA has indicated that AQMD's adoption of an emission tracking rule (such as PR1315) is necessary before Rule 1309.2 can be approved into the SIP.

AQMD's NSR program is designed, amongst other things, to, at a minimum, offset emission increases in a manner equivalent to federal statutory NSR requirements. To this end, AQMD's NSR program implements the federal statutory requirements for NSR and ensures that construction and operation of new and modified sources does not interfere with progress towards attainment of the National and State Ambient Air Quality Standards. AQMD's computerized emission tracking system is utilized to demonstrate equivalence with federal offset requirements on an aggregate basis. Specific NSR requirements of federal law are presented below.

Federal Law

Federal law requires the use of Lowest Achievable Emission Rate (LAER) and offsets for new, modified, and relocated major stationary sources³. Effective November 15, 1992, the federal Clean Air Act (CAA) requires a 1.5-to-1 external offset ratio for major stationary sources located in an extreme ozone non-attainment area. For this reporting period⁴, the South Coast Air Basin (SOCAB) is one of only two areas in the nation that has been designated as extreme ozone non-attainment. An extreme ozone non-attainment area may qualify for a 1.2-to-1 offset ratio if it requires implementation of federal Best Available Control Technology (BACT), as defined in CAA Section 169(3) for prevention of Significant Deterioration of Air Quality on all major sources [CAA Section 182(e)(1)]. The federal definition of BACT is equivalent to state Best Available Retrofit Control Technology (BARCT), which AQMD implements through its Regulation XI – Source Specific Standards and other AQMD rules and regulations. AQMD meets this criterion and uses a 1.2-to-1 offset ratio. In addition, AQMD not only requires the 1.2-to-1 offset ratio for all federal sources, but also requires the same offset ratio for non-federal sources⁵.

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The October 20, 2000 amendments to Rule 1302 – Definitions changed the "major stationary source" thresholds applicable to AQMD's jurisdiction. The applicable thresholds during the time period covered by this report were as summarized below:

| Pollutant | SOCAB | SSAB | MDAB |
|-----------|-------------------|-------------------|-------------------|
| VOC | 10 tons per vear | 25 tons per vear | 100 tons per vear |
| NOx | 10 tons per year | 25 tons per year | 100 tons per year |
| SOx | 100 tons per year | 100 tons per year | 100 tons per year |
| PM10 | 70 tons per year | 70 tons per year | 100 tons per year |
| СО | 50 tons per year | 100 tons per year | 100 tons per year |

⁴ The South Coast Air Basin is currently classified by EPA in severe 17 ozone non-attainment status. However, this basin was designated as extreme non-attainment during the reporting periods covered by this demonstration of equivalence.

Non-federal sources that do not meet any of the exemption criteria of Rule 1304 and that do not qualify to obtain offsets from the Priority Reserve are also required by AQMD to provide offsets (i.e., ERCs) at a ratio of 1.2-to-1.

Based on their classification, the SOCAB and Salton Sea Air Basin (SSAB) must comply with the requirements for extreme and severe non-attainment areas, respectively, for ozone precursors (i.e., VOC and NOx). Both the SOCAB and the SSAB must at this time comply with the requirements for serious non-attainment areas for PM10 and its precursors (i.e., VOC, NOx, and SOx). For CO, the SOCAB must comply with the requirements for serious non-attainment areas; however SSAB is considered attainment for CO. SOCAB had one federal CO exceedance in 2002 and has not had any since that time. AQMD has requested EPA to re-designate SOCAB as attainment with federal CO standards and is waiting for EPA's action on that request. Both SOCAB and SSAB are considered attainment for SO₂ and NO₂, however SOx and NOx are precursors to pollutants for which both SOCAB and SSAB are designated as non-attainment. The Mojave Desert Air Basin (MDAB) is currently unclassified for all pollutants. The various attainment statuses for the VOC, NOx, SOx, PM10, and CO in the three air basins for this reporting period result in the major source thresholds presented by pollutant and air basin in footnote 3 on the previous page. This report demonstrates compliance with the federal NSR requirements.

OVERVIEW OF ANALYSIS METHODOLOGY

The two major elements of federal NSR requirements are LAER and emission offsetting. AQMD's BACT requirements are at least as stringent as federal LAER for major sources. Furthermore, the NSR emission offset requirements that AQMD implements through its permitting process ensure that sources provide emission reduction credits (ERCs) to offset their emission increases in compliance with federal requirements. As a result, these sources each comply with federal offset requirements by providing their own ERCs. However, certain sources are exempt from AQMD's offset requirements pursuant to Rule 1304 or qualify for offsets from AQMD's Community Bank (applications received between October 1, 1990 and February 1, 1996 only) or Priority Reserve, both pursuant to Rule 1309.1. AQMD has determined that providing offset exemptions and the Priority Reserve (as well as the previously-administered Community Bank) is important to the NSR program and the local economy while encouraging installation of control equipment. Therefore, AQMD has assumed the responsibility of providing the necessary offsets for exempt sources, the Priority Reserve, and the Community Bank. This report examines credits to and debits from AQMD's emission offset accounts and demonstrates programmatic equivalence on an aggregate basis with federal emission offset requirements for the sources exempt from providing offsets and the sources that receive offsets from the Priority Reserve or the Community Bank.

AQMD's Offset Accounts

For the purposes of this report, debit and credit accounting for AQMD's offset accounts was conducted pursuant to the procedures delineated in PR1315 and described in the staff report to which this is attached. Each of the five pollutants subject to offset requirements (VOC, NOx, SOx, CO, and PM10) has its own offset account. AQMD's NSR program is considered to provide equivalent or greater offsets of emissions as required by federal requirements for each subject pollutant provided the balance of credits left in AQMD's offset account for each pollutant remains positive, indicating that there were adequate offsets available.

⁶ SOx is a precursor to PM10 and NOx is a precursor to both PM10 and ozone.

Debit Accounting

On the other hand, AQMD also tracks all emission increases that are offset through the Priority Reserve or the Community Bank, as well as all increases that are exempt from offset requirements pursuant to Rule 1304 – Exemptions. These increases are all debited from AQMD's offset accounts when they occur at major sources. AQMD uses an offset ratio of 1.2-to-1.0 for extreme non-attainment pollutants (currently ozone and ozone precursors) and uses 1.0-to-1.0 for all other non-attainment pollutants (non-ozone precursors) at this time to offset any such increases. That is, at this time 1.2 pounds are deducted from AQMD's offset accounts for each pound of maximum allowable permitted potential to emit VOC or NOx increase at a federal source 1.0 pound for each pound of maximum allowable permitted potential to emit SOx, CO, or PM10 at a federal source. Refer to the PR1315 staff report for a more complete description of debit accounting.

Credit Accounting

When emissions from a permitted source are permanently reduced (e.g., installation of control equipment, removal of the source) and the emission reduction is not required by rule or law and is not called for by an AQMP control measure that has been assigned a target implementation date⁷, the permit holder may apply for ERCs for the pollutants reduced. If the permit holder for the source generating the emission reduction had previously received offsets from AQMD or has a "positive balance" (i.e., pre-1990 net emission increase), the quantity of AQMD credits used or the amount of the positive balance is subtracted from the reduction and "paid back" to AQMD's accounts prior to issuance of an ERC pursuant to Rule 1306. In other cases, permit holders do not always submit applications to claim ERCs for their equipment shutdowns or other eligible emission reductions. These unclaimed reductions are referred to as "orphan shutdowns" or "surplus reductions" and are credited to AQMD's offset accounts. ERCs provided as offsets by major sources in excess of the applicable federally-required offset ratio and all ERCs provided as offsets by minor sources are also credited to AQMD's offset accounts. Refer to the PR1315 staff report for a more complete description of credit accounting.

PROVISIONAL DEMONSTRATIONS OF EQUIVALENCE WITH FEDERAL OFFSET REQUIREMENTS

Table C-4 presents the total emission increases debited from AQMD's offset accounts from August 2002 through July 2003. Credits to AQMD's offset accounts during the same period are summarized in Table C-5. Finally, the sum of debit and credit activity for the federal accounts is displayed in Table C-6. Similarly, Tables C-7, C-8, and C-9 summarize the debits, credits, and net activity, respectively, for August 2003 through July 2004. Refer to PR1315 and the staff report to which this report is attached for an explanation of the sources of credits and debits.

⁷ Refer to Rule 1309(b) for a complete explanation of eligibility requirements.

Table C-4
Debits from AQMD's Offset Accounts
(August 2002 through July 2003)

| DISTRICT OFFSETS USED | voc | NOx | SOx | СО | PM10 |
|---------------------------------------|-------|-------|------|-------|------|
| Priority Reserve* (lb/day) | 383 | 867 | 135 | 2,249 | 159 |
| Community Bank (lb/day) | 0 | 14 | 0 | 0 | 0 |
| Rule 1304 Exemptions (lb/day) | 804 | 841 | 0 | 2,295 | 52 |
| Sum Total of AQMD Offsets (lb/day) | 1,187 | 1,722 | 135 | 4,544 | 211 |
| 120% Offset Ratio (lb/day) | 237 | 344 | N/A | N/A | N/A |
| Total Debit to AQMD Account (lb/day) | 1,424 | 2,066 | 135 | 4,544 | 211 |
| Total Debit to AQMD Account (ton/day) | 0.71 | 1.03 | 0.07 | 2.27 | 0.10 |

^{*} Includes electrical generating facilities and other sources accessing the Priority Reserve.

Table C-5
Credits to AQMD's Offset Accounts
(August 2002 through July 2003)

| CREDITS RECEIVED* | VOC | NOx | SOx | СО | PM10 |
|--|--------|--------|------|--------|-------|
| Major Source Orphan Credits (lb/day) | 4,619 | 4,289 | 58 | 3,995 | 2,879 |
| Minor Source Orphan Credits (lb/day) | 11,955 | 2,998 | 549 | 4,690 | 1,253 |
| Total Orphan Credits (lb/day) | 16,574 | 7,287 | 607 | 8,685 | 4,132 |
| Adjustment to Actual Emissions* (lb/day) | -3,315 | -1,457 | -121 | -1,737 | -826 |
| Discount of ERCs** (lb/day) | 31 | 0 | 38 | 15 | 30 |
| Creditable Minor Source ERC Use (lb/day) | 225 | 78 | 21 | 147 | 139 |
| Creditable Major Source ERC Use (lb/day) | 0 | 0 | 0 | 39 | 5 |
| Total Credit to AQMD Account (lb/day) | 13,515 | 5,908 | 545 | 7,149 | 3,480 |
| Total Credit to AQMD Account (ton/day) | 6.76 | 2.95 | 0.27 | 3.57 | 1.74 |

^{*} Adjustment of orphan shutdown and orphan reduction offset credits deposited in AQMD offset accounts to correct from potential emissions to actual emissions pursuant to PR1315(b)(3)(B)(i).

^{** &}quot;Payback" of NSR balance, Community Bank and Priority Reserve allocations, and offset exemptions pursuant to PR1315(b)(3)(v) and Rule 1306(c).

Table C-6
Sum of Credits/Debits Activity in AQMD's Offset Accounts
(August 2002 through July 2003)

| | VOC | NOx | SOx | СО | PM10 |
|--|--------|--------|------|--------|-------|
| Total Debits* (lb/day) | -1,424 | -2,066 | -135 | -4,544 | -211 |
| Total Credits* (lb/day) | 13,515 | 5,908 | 545 | 7,149 | 3,480 |
| Sum of Debits(-)/Credits(+)* (lb/day) | 12,091 | 3,842 | 410 | 2,605 | 3,269 |
| Sum of Debits(-)/Credits(+)* (ton/day) | 6.05 | 1.92 | 0.20 | 1.30 | 1.63 |

Debits are shown as negative and Credits as positive, while their sum is shown as negative or positive, as appropriate.

Table C-7
Debits from AQMD's Offset Accounts
(August 2003 through July 2004)

| DISTRICT OFFSETS USED | VOC | NOx | SOx | СО | PM10 |
|---------------------------------------|------|-------|------|-------|------|
| Priority Reserve* (lb/day) | 99 | 517 | 0 | 919 | 0 |
| Community Bank (lb/day) | 0 | 0 | 0 | 0 | 0 |
| Rule 1304 Exemptions (lb/day) | 350 | 825 | 3 | 2602 | 245 |
| Sum Total of AQMD Offsets (lb/day) | 449 | 1,342 | 3 | 3,521 | 245 |
| 120% Offset Ratio (lb/day) | 90 | 268 | N/A | N/A | N/A |
| Total Debit to AQMD Account (lb/day) | 539 | 1,610 | 3 | 3,521 | 245 |
| Total Debit to AQMD Account (ton/day) | 0.27 | 0.80 | 0.00 | 1.76 | 0.12 |

^{*} Includes electrical generating facilities and other sources accessing the Priority Reserve.

Table C-8
Credits to AQMD's Offset Accounts
(August 2003 through July 2004)

| CREDITS RECEIVED* | VOC | NOx | SOx | СО | PM10 |
|--|--------|-------|-------|--------|-------|
| Major Source Orphan Credits (lb/day) | 6,355 | 841 | 7 | 3,749 | 467 |
| Minor Source Orphan Credits (lb/day) | 16,850 | 3,953 | 2,259 | 3,060 | 2,653 |
| Total Orphan Credits (lb/day) | 23,205 | 4,794 | 2,266 | 6,809 | 3,120 |
| Adjustment to Actual Emissions* (lb/day) | -4,641 | -959 | -453 | -1,362 | -624 |
| Discount of ERCs** (lb/day) | 7 | 0 | 0 | 0 | 0 |
| Creditable Minor Source ERC Use (lb/day) | 224 | 77 | 20 | 148 | 139 |
| Creditable Major Source ERC Use (lb/day) | 0 | 0 | 0 | 39 | 4 |
| Total Credit to AQMD Account (lb/day) | 18,795 | 3,912 | 1,833 | 5,634 | 2,639 |
| Total Credit to AQMD Account (ton/day) | 9.40 | 1.96 | 0.92 | 2.82 | 1.32 |

^{*} Adjustment of orphan shutdown and orphan reduction offset credits deposited in AQMD offset accounts to correct from potential emissions to actual emissions pursuant to PR1315(b)(3)(B)(i).

Table C-9
Sum of Credits/Debits Activity in AQMD's Offset Accounts
(August 2003 through July 2004)

| | VOC | NOx | SOx | СО | PM10 |
|--|--------|--------|-------|--------|-------|
| Total Debits* (lb/day) | -539 | -1,610 | -3 | -3,521 | -245 |
| Total Credits* (lb/day) | 18,795 | 3,912 | 1,833 | 5,634 | 2,639 |
| Sum of Debits(-)/Credits(+)* (lb/day) | 18,256 | 2,302 | 1,830 | 2,113 | 2,394 |
| Sum of Debits(-)/Credits(+)* (ton/day) | 9.13 | 1.15 | 0.92 | 1.06 | 1.20 |

^{*} Debits are shown as negative and Credits as positive, while their sum is shown as negative or positive, as appropriate.

The sum of credits and debits activity from this analysis (the sum may be positive or negative) is added to the starting offset account balance for each pollutant to calculate the offset account ending balance which is then used to determine compliance with federal NSR requirements. Refer to Table C-1 for a summary of starting and ending account balances for the August 2002 through July 2003 reporting period and Table C-2 for the August 2003 through July 2004 reporting period.

^{** &}quot;Payback" of NSR balance, Community Bank and Priority Reserve allocations, and offset exemptions pursuant to PR1315(b)(3)(v) and Rule 1306(c).

ELECTRICAL GENERATING FACILITY ACCESS TO PRIORITY RESERVE

The April 2001 amendments to Rule 1303 – Requirements and Rule 1309.1 – Priority Reserve provide EGFs with access to PM10 offsets from the Priority Reserve⁸. Subsequently, the November 2001 and May 2002 amendments to Rule 1309.1 expanded EGF access to Priority Reserve offsets to include SOx and CO. Table C-10 summarizes the Priority Reserve offsets provided to EGFs during the August 2002 through July 2003 reporting period and Table C-11 summarizes it for the August 2003 through July 2004 reporting period. These priority reserve debits are included in (not in addition to) the debits summarized in Tables C-4, and C-7.

Table C-10
EGF Access to Priority Reserve Offsets
(August 2002 through July 2003)

| | PM10 | SOx | СО |
|---|------|-----|----|
| Priority Reserve Offsets Used (lb/day) | 514 | 0 | 0 |
| Priority Reserve Offsets Used (ton/day) | 0.26 | 0 | 0 |

Table C-11
EGF Access to Priority Reserve Offsets
(August 2003 through July 2004)

| | PM10 | SOx | СО |
|---|------|-----|----|
| Priority Reserve Offsets Used (lb/day) | 15 | 0 | 0 |
| Priority Reserve Offsets Used (ton/day) | 0.01 | 0 | 0 |

CONCLUSIONS

The analysis presented in this report demonstrates that AQMD's NSR program provides equivalent offsets to those required by federal NSR requirements and is at least equivalent to the federal requirements on an aggregate basis. This conclusion is based on the fact that the ending offset account balances for both of the reporting periods covered by this report (August 2002 through July 2003 and August 2003 through July 2004), as shown in Tables C-1 and C-2, respectively, remained positive for all pollutants. The majority of sources subject to AQMD's permitting program are not major stationary sources and, therefore, are not subject to federal offset requirements. The sums of credits to and debits from AQMD's offset accounts during the August 2002 through July 2003 and August 2003 through July 2004 reporting periods were positive for all pollutants in both years. However, the NOx offset account experienced a net decrease for the August 2003 through July 2004 reporting period of 1.06 tons per day. This net decrease occurred because the amount of the NOx surplus at the time of use discount pursuant to PR1315(b)(4) for this reporting period (-2.16 tons per day) was larger than the increase due to the sum of credits and debits (1.11 tons per day) for the reporting period.

⁸ Refer to Rule 1309.1(a)(4) for eligibility requirements.

Staff will continue to track credits to and debits from AQMD's offset accounts and will provide annual reports and equivalency demonstrations to the Board consistent with PR1315 to ensure that AQMD's NSR program continues to operate in compliance with federal NSR requirements.